



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/727,725	12/01/2000	Harry C. Buchanan JR.	VAL-380-B	4839

7590 10/04/2002

ATTN: Andrew R. Basile
YOUNG & BASILE, P.C.
SUITE 624
3001 WEST BIG BEAVER ROAD
TROY, MI 48084-3107

EXAMINER

HANSEN, COLBY M

ART UNIT PAPER NUMBER

3682

DATE MAILED: 10/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/727,725

Applicant(s)
Buchanan JR. et al.

Examiner
Colby Hansen

Art Unit
3682



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 18, 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 and 40-47 is/are pending in the application.
- 4a) Of the above, claim(s) 11-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 27-38, and 40-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

Art Unit: 3682

DETAILED ACTION

1. Applicant's election of 7/19/2001 in Paper No.4 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MEP. § 818.03(a)).

Applicant and Examiner erroneously considered claims 18-26 to be readable upon the elected species of figures 18-19. Claims 18-26 are solely readable upon non-elected species B and have hereby been withdrawn from consideration.

Application/Control Number: 09/727,725

Art Unit: 3682

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-9, ~~27-38~~ and ~~40-47~~, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Nilsson (US Pat. 4,364,282).

Nilsson ('282) discloses in a ball nut (fig. 1) having at least one internal bearing race with a first end and a second end, and a crossover passage (fig. 2) for connecting the first end and the second end to form a continuous recirculation path for a plurality of ball bearings, the improvement comprising:

at least two eyelets, ends of 13, 14, 15, 18, each eyelet having a helix passage for receiving a plurality of ball bearings formed in a flange end and a crossover passage formed in the flange end, the crossover passage in communication with the helix passage for returning the plurality of ball bearings, wherein assembling the two eyelets in flange-to-flange relationship with respect to one another defines at least one raceway having a single recirculation rotational path for receiving the plurality of ball bearings;

the assembled eyelets overmolded to provide a unitary ball nut, as broadly recited;

the eyelets 13, 14, 15, 18 are identical to one another;

Application/Control Number: 09/727,725

Art Unit: 3682

at least one tab 8,9,10,11 formed on the flange end of the eyelet to define the lock member 42;

the plurality of ball bearings 17 inserted within the helix passage and the crossover passage during assembly;

a punch, as broadly recited recesses 18, 19, in the helix passage to direct ball bearings into the crossover;

means for forming an eyelet (as broadly recited inherent);

means for defining a portion of a crossover portion in the flange end (as broadly recited inherent);

means for assembling the two eyelets in flange-to-flange relationship (as broadly recited inherent);

means for over molding the assembled eyelets (as broadly recited inherent);

means for drawing an eyelet (as broadly recited inherent);

means for temporarily holding the two eyelets with respect to one another (as broadly recited inherent);

means for forming at least one tab on the flange (as broadly recited inherent);

means for inserting the ball bearings (as broadly recited inherent);

means for providing a punch in the helix passage (as broadly recited inherent).

With regard to claims involving specific means of production (e.g. coining, injection molding, stamping, etc.), applicant is advised that no patentable weight is granted to such

Application/Control Number: 09/727,725

Art Unit: 3682

limitations because product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps (MPEP 2113).

9. Claims 1-9, ~~27-38~~, and ~~40-47~~, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Galonska (US Pat 3,006,212).

Galonska ('212) discloses in a ball nut (fig. 1) having at least one internal bearing race with a first end and a second end, and a crossover passage 36 for connecting the first end and the second end to form a continuous recirculation path for a plurality of ball bearings, the improvement comprising:

at least two eyelets, ends of 22 each eyelet having a helix passage for receiving a plurality of ball bearings formed in a flange end and a crossover passage formed in the flange end, the crossover passage in communication with the helix passage for returning the plurality of ball bearings, wherein assembling the two eyelets in flange-to-flange relationship with respect to one another defines at least one raceway having a single recirculation rotational path for receiving the plurality of ball bearings;

the assembled eyelets overmolded to provide a unitary ball nut, as broadly recited;

the eyelets 22 are identical to one another;

at least one tab 20,22 formed on the flange end of the eyelet to define the lock member;

the plurality of ball bearings 23 inserted within the helix passage and the crossover passage during assembly;

Application/Control Number: 09/727,725

Art Unit: 3682

a punch, as broadly recited recessed area between 35 & 36, in the helix passage to direct ball bearings into the crossover;

means for forming an eyelet (as broadly recited inherent);

means for defining a portion of a crossover portion in the flange end (as broadly recited inherent);

means for assembling the two eyelets in flange-to-flange relationship (as broadly recited inherent);

means for over molding the assembled eyelets (as broadly recited inherent);

means for drawing an eyelet (as broadly recited inherent);

means for temporarily holding the two eyelets with respect to one another (as broadly recited inherent);

means for forming at least one tab on the flange (as broadly recited inherent);

means for inserting the ball bearings (as broadly recited inherent);

means for providing a punch in the helix passage (as broadly recited inherent).

With regard to claims involving specific means of production (e.g. coining, injection molding, stamping, etc.), applicant is advised that no patentable weight is granted to such limitations because product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps (MPEP 2113).

Application/Control Number: 09/727,725

Art Unit: 3682

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 10 & 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nilsson ('282).

Nilsson ('282) discloses the claimed invention except for the use of a metal hardened to approximately Rc 62. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have constructed the nut assembly of Nilsson ('282) with a metal hardened to Rc 62, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. In addition, applicants' lack of disclosure of the pertinence of such a material within the specification, further cements Examiner's assertion of obvious design choice.

12. Claims 10 & 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galonska ('212).

Galonska ('212) discloses the claimed invention except for the use of a metal hardened to approximately Rc 62. It would have been obvious to one having ordinary skill in the art at the

Application/Control Number: 09/727,725

Art Unit: 3682

time the invention was made to have constructed the nut assembly of Nilsson ('282) with a metal hardened to Rc 62, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. In addition, applicants' lack of disclosure of the pertinence of such a material within the specification, further cements Examiner's assertion of obvious design choice.

Response to Arguments

Applicant's arguments filed 6/18/2002 have been fully considered but they are not persuasive.

Applicants' arguments regarding claims 18-26 are moot in light of there being withdraw from consideration. Examiner apologizes for any confusion.

Regarding applicants' argument that both Nilsson and Galonska lack the teaching of "eyelets". It is held that as broadly recited, and best understood, the "eyelets" 13, 14, 15, and 18 within Nilsson and the "eyelets" ends of 22 within Galonska fulfill the "Merriam Webster's Collegiate Dictionary" definition of "eyelet" as "a small typically metal ring to reinforce an eyelet".

Regarding applicants' argument that neither Nilsson, nor Galonska disclose a first stamped part with a first portion of a groove and a first portion of a cross-over passage in the first flange region, and a second stamped part with a second portion of the groove and a second

Application/Control Number: 09727,725

Art Unit: 3682

portion of the cross-over passage in the second flange region. Nilsson does disclose the cross-over passages 18 and 19 on one side, but as broadly recited the recirculation passage 13, 14 are considered as a portion of the cross-over section. As for Galonska, it is the opinion that both first and second stamped parts comprise a first and second portion of the cross-over pass as best seen in figure 2.

FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is (703) 305-3597. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MEP. 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MEP. 512). The following is an example of the format the certification might take:

Application/Control Number: 09727,725

Art Unit: 3682

I hereby certify that this correspondence is being facsimile transmitted to the Patent and
Trademark Office (Fax No. (703) 305-3597) on _____

(Date)

Typed or printed name of person signing this certificate:

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MEP. 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Application/Control Number: 09727,725

Art Unit: 3682

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Colby Hansen whose telephone number is (703) 305-1036. The examiner can normally be reached on Monday through Thursday and every other Friday from 7:30 PM to 5:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci, can be reached on (703) 308-3668. Any inquiry of a general nature or

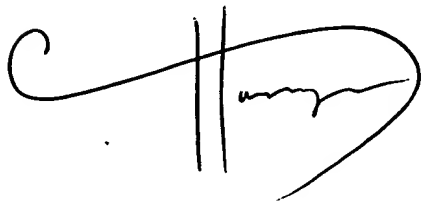
Application/Control Number: 09727,725

Art Unit: 3682


relating to the status of this application or proceeding should be directed to the Group
receptionist whose telephone number is (703) 308-2168.

Colby M. Hansen

Patent Examiner



9/30/02



DAVID A. BUCCIA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600